

AMENDMENTS TO THE CLAIMS

1.(Currently Amended) A process for providing a protective coating on a substrate comprising

(1) applying to the substrate a coating composition comprising an homogeneous mixture comprising an inorganic sol and polymerisable organic species, wherein the inorganic sol being is obtainable by ~~hydrolysing~~ hydrolysis of first and second hydrolysable inorganic monomer precursors separately from one another to form a first sol and a second sol, and mixing the first and second sols to form inorganic monomers, the first hydrolysable inorganic monomer precursors being different to the second hydrolysable inorganic monomer precursors and having at least two hydrolysable groups, and the second hydrolysable inorganic monomer precursors having at least one non-hydrolysable group;

(2) polymerising the polymerisable organic species; and

(3) polymerising the inorganic monomers, wherein polymerisation of the polymerisable organic monomers—species is initiated prior to completion of polymerisation of the inorganic monomers,  
to form a solid coating on the substrate.

2.(Original) A process according to claim 1, wherein hydrolysis of the hydrolysable monomer precursors takes place in the presence of a mineral acid.

3.(Currently amended) A process according to claim 1 or claim 2, wherein the hydrolysable inorganic monomer precursors are alkoxides, ~~preferably alkoxysilanes~~.

4. (Cancelled)

5.(Currently amended) A process according to claim [[4]] 1, wherein the molar ratio of the first hydrolysable monomer precursors: total of first and second hydrolysable monomer precursors is in the range 0.75 to 0.9 and the coating composition comprises at least 50 % by weight inorganic monomers.

6.(Currently amended) A process according to claim 5, wherein the molar ratio of the first hydrolysable monomer precursors: total of first and second hydrolysable monomer precursors is in the range 0.78 to 0.88.

7.(Currently amended) A process according to claim [[4]] 1, wherein the first hydrolysable monomer precursors comprise a tetraalkoxysilane and the second hydrolysable monomer precursors comprise an alkoxysilane having at least one ethylenically-unsaturated group ~~and~~/or an epoxy group.

8.(Original) A process according to claim 7, wherein the first hydrolysable inorganic monomer precursors comprise tetraethoxysilane and the second hydrolysable precursors comprise 3-(trimethoxysilyl) propylmethacrylate.

9. (Cancelled)

10. (Presently amended) A process according to claim [[9]] 1, wherein the sol is aged prior to mixing with the polymerisable organic species.

11.(Currently amended) A process according to claim [[9]] 1, wherein the polymerisable organic monomers are added to the sol in liquid or solution form.

12. (Currently amended) A process according to claim [[9]] 1, wherein the polymerisable organic species are polymerisable to form a thermoplastic material or a thermosetting material.

13. (Currently amended) A process according to claim 12, wherein the polymerisable organic species are selected from carbonates, urethanes, urethane precursors ~~such as isocyanates or diisocyanates and polyols~~, urethane acrylates and terephthalates.

14. (Currently amended) A process according to claim 1, wherein the substrate is selected from thermoplastic materials and thermosetting materials, metals, ceramic materials, natural materials, or any of these materials which are pre-coated ~~e.g. with a decorative finish~~.

15. (Original) A process according to claim 14, wherein the substrate comprises a polycarbonate or a polyacrylic material.

16. (Previously amended) A coated substrate obtainable by a process according to claim 1.

17. (Original) A coated substrate according to claim 16, wherein the coating is transparent.

18. (Currently amended) A coating composition comprising an homogeneous mixture comprising an inorganic sol and polymerisable organic species, the inorganic sol being obtainable by ~~hydrolyzing~~ hydrolysis of first and second hydrolysable inorganic monomer precursors separately from one another to form a first sol and a second sol, and mixing the first and second sols to form inorganic monomers, the first hydrolysable

inorganic monomer precursors being different to the second hydrolysable inorganic monomer precursors and having at least two hydrolysable groups, the second hydrolysable inorganic monomer precursors having at least one non-hydrolysable group.

19. (Cancelled)

20. (Withdrawn) A process for bonding together at least two articles comprising applying to the surface of one or each article a composition as defined in claim 18, bringing the surfaces to be bonded into contact with one another, and then curing the composition, to form a secure bond.

21. (New) A process according to claim 3, wherein the hydrolysable inorganic monomer precursors are alkoxysilanes.

22. (New) A process according to claim 13, wherein the polymerisable organic species are selected from isocyanates or diisocyanates and polyols.

23. (New) A process according to claim 14, wherein the substrate is pre-coated with a decorative finish.